

the Santiam region south to the McKenzie-Three Sisters region. Since this species is wide-spread in scattered mats over the barer basalts in association with *Juncus Parryi* Engelm. and *Penstemon Menziesii* var. *Davidsonii* (Greene) Piper, and in view of its communal-edaphic amplitudes it seems possible that this species is co-extensive with the whole more-or-less homogeneous chain of basalts.

Grateful appreciation is acknowledged Dr. H. M. Gilkey, Curator of the Oregon State College Herbarium who confirmed the style diversity in the fresh material and later checked the work on this species; Miss D. Babb, North Texas State College, who criticized the Latin context; and Mrs. R. S. Ferris, Assistant Curator of the Dudley Herbarium, who loaned authoritative specimens.

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#### REVIEWS

*Handbook of North Dakota Plants.* By ORIN ALVA STEVENS. The North Dakota Institute for Regional Studies, North Dakota Agricultural College, Fargo, North Dakota. 324 pp., frontispiece, figures 1-319. 1950. \$4.50.

The Handbook of North Dakota Plants satisfies a long-felt need for a comprehensive manual on the Flora of North Dakota. It is limited to plants known to occur in the State as native or introduced species which are growing in the wild. Although the Handbook is based primarily on botanical collections beginning in 1890 with the establishment of the North Dakota Agricultural College, it has drawn heavily upon the careful field and herbarium studies of the North Dakota flora made by Dr. Stevens over a period of forty years. This is reflected in the brief but very useful and pertinent comments on various species. Aside from the usual technical descriptions, the volume contains much useful information on the ecology,

distribution, poisonous properties, food value, and other noteworthy items not usually referred to in botanical manuals.

The Handbook includes a brief history of early botanical explorations in North Dakota. Also included under general information are maps of the State showing the counties and principal cities, the chief physical features, and sixteen outline maps of the State showing typical plant associations and species distributions.

The author has treated species and species names conservatively. For example, all of the genus *Amelanchier* is included under the single species, *A. alnifolia* Nutt., even though other authorities at times have described North Dakota material under several additional species names. In cases of this type, where the author has had a wide personal field acquaintance with the native material and could not establish the presence of fundamental taxonomic differences, he has generally avoided the separation into additional species.

The figures are of excellent quality and were largely photographed, or, in the case of line drawings, drawn specifically to serve a certain purpose in the Handbook. The binding, paper, and printing are of good quality, and the text is quite free of typographical errors. It includes descriptions of 1143 species and 102 families.

The student and teacher will find informative suggestions on the use of keys. The general key to families is supplemented with 82 carefully chosen line drawings that are printed in the margin of the key. Due to the limited number of genera, the keys to the species usually follow the general description of the family. A single key may be used for the genera and species in a family, especially if the genera include only a few species. This may result in slight confusion to those who are accustomed to having separate keys for genera and species.

The Handbook is intended for use in studying a rather limited flora which includes part of the transition zone between the eastern woodland flora and the grassland flora of the Plains. Within its proper range it is an exceptionally useful volume to the amateur and professional alike. JOSEPH H. SCHULTZ, Department of Horticulture, North Dakota Agricultural College, Fargo, North Dakota.

*Flora of the Charleston Mountains, Clark County, Nevada.* By IRA W. CLOKEY. University of California Publications in Botany, vol. 24, vi + 274 pp., map. 1951. University of California Press, Berkeley and Los Angeles. \$2.75 (paper), \$3.75 (cloth).

Intensive study of the vegetation of restricted areas is a phase of botanical activity too often neglected. Concentration on a limited field enables an observer to acquire a deeper and more accurate view of the variability, ecological requirements,